

ABSTRACT OF THE INVENTION

Sub #27
A method and system for selectively enabling wake events (wake general purpose events, or GPEs) in software of a computer system to overcome problems arising when hardware devices fail to clear a wake signal. The operating system intelligently manages wake events, and also distinguishes between events that are exclusively wake events, exclusively run-time events, and shared wake and run-time events. At boot time, the ACPI driver examines system tables provided by firmware to determine which GPEs are associated with wake-up events, either exclusively or shared with run-time events. These wake event associations are tracked, whereby they are managed differently from events received on other hardware register pins. In general, when the operating system receives events in a GPE Status hardware register that is enabled in a counterpart Enable register, the operating system runs an associated GPE method. When the GPE method has completed, the operating system selectively determines whether the event needs to be re-enabled, e.g., for events that are wake only and have no outstanding request for that event to wake up the computer. Events received on pins that are wired for shared wake and run-time events are enabled during run-time, but handled differently.